

PROCEEDINGS OF THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON

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ORDINARY MEETING

WEDNESDAY, 1st JUNE, 1955, at 5.30 p.m.

AGENDA

1. Confirmation of the Proceedings of the Ordinary Meeting held on 4th May, 1955.
2. Recommendations of candidates for Fellowship. First reading.
3. Recommendations of candidates for Fellowship. Second reading.
4. Announcement of election of new Fellows.
5. Additions to the Library. [See p. 18.]
6. Admission of Fellows.
7. Exhibits.

Fellows are particularly requested to bring suitable exhibits to the Meeting even though it may not be possible to announce their intention to do so beforehand.

Note.—To avoid congestion in the Library and to enable exhibits to be displayed to greater advantage, a table has been placed in the meeting-room for this purpose. Fellows are asked to place their exhibits on this table with a suitable explanatory note, as soon as possible on the afternoon of the meeting, so that they are available for inspection there before the meeting opens.

8. Communications.

Dr. J. D. Carthy.

Expedition to Pico and Fayal, 1952.

[ABSTRACT.]

The Azores are of volcanic origin and there is no evidence that they were ever connected with the Continent or the Americas. The Queen Mary College Expedition visited the islands in the summer of 1952, spending most of their time on the islands of Pico and Fayal. These islands are separated from each other by a channel about 4 miles wide and Pico is separated from the neighbouring island of São Jorge by 12 miles of water.

The insect fauna of both islands shows indications that sub-speciation is occurring, though there are few endemic species. The fact that shipping can come into harbour at Horta (Fayal) but has to stand off-shore at Pico may contribute to the apparently greater variety of species on that island. The fauna is mainly derived from the Continent with an admixture of American forms and a few strays from other parts.

The talk will be illustrated by lantern slides.

Tea will be served in the Library before the meeting.

PROCEEDINGS OF THE ORDINARY MEETING HELD ON 4TH MAY, 1955.

Dr. W. J. Hall, C.M.G., M.C., President, in the Chair.

Present : 72 Fellows and 17 Visitors.

The minutes of the Ordinary Meeting held on 6th April were confirmed and signed by the President.

The names of the following candidates for election were read for the first time : Mr. Roland Coates Bland, Sultan Ali Chaudhry.

For the second time (taken as read) : Mr. Harry Britten, M.M. ; Mr. Hubert Dick Brown ; Dr. Earnest Howard Colhoun ; Mr. Louis Gurr, M.Sc. ; Mr. Abdul Aziz Khan, M.Sc. ; Mr. Alan Wilfrid Lane ; Dr. Bruce McMillan, M.B., B.S. ; Mr. Eric George Philp ; Mr. Brian Seed ; Mr. Geoffrey Vernon Philip Sewell ; Mrs. Fiona Francisca Sprague.

The Secretary read the names of the following newly elected Fellows of the Society : Mr. Howard Leslie Glendower Boyce, 129, Nicolson Road, Glenwood, Durban, South Africa ; Mr. Roderick Campbell Fisher, King's College, Cambridge ; Mr. Charles Fitzroy Griffith, B.Sc., 23, The Rooley, Huyton, Liverpool ; Mr. Graham Charles Douglas Griffiths, 13, Woodlands Avenue, Finchley, London, N.3 ; Mr. Derek Baillie Janson, 44, Great Russell Street, London, W.C.1 ; Mr. B. P. Mehra, M.Sc., Indian Lac Research Institute, Namkum (Ranchi), India ; Miss Ivy Bernice Baker Mell, B.Sc., 16, The Uplands, Kenton, Newcastle-upon-Tyne, 3 ; Mr. Talib Ali Omardeen, Imperial College of Science and Technology, Prince Consort Road, London, S.W.7 ; Mr. Arthur Poo Nyo, B.Sc., M.Sc., Imperial College Field Station, Silwood Park, Sunninghill, Berks.

Thanks were voted to donors of gifts to the Library since the last meeting.

Mr. G. C. D. Griffiths and Mr. T. A. Omardeen signed the Obligation Book and were admitted Fellows of the Society.

The following papers, accepted for publication in the *Transactions*, were read in title :

"The food habits and description of *Atrichopogon pollinivorus* sp. n. (Diptera : Ceratopogonidae)", by J. A. Downes.

"Observations on sub-social behaviour in two species of lepidopterous larvae, *Pieris brassicae* L. and *Plusia gamma* L.", by D. B. Long.

Dr. J. L. Cloudsley-Thompson exhibited adults of *Arixenia esau* Jordan and *A. jacobsoni* Burr (Dermaptera : Arixenioidea) obtained by Dr. J. R. Audy from the Bukit Lagong Forest Reserve, Selangor, Malaya.

He said *A. esau* was known previously from four nymphs found by a London taxidermist about 1909 in the breast pouch of a specimen of the Hairless Bulldog Bat (*Cheiromeles torquatus* Horsf.). A number of specimens of *A. jacobsoni* were obtained two years later from a cave inhabited by bats near Babakan, southern Java. The present specimens were obtained from scrapings of guano, etc., from a hole in a large durian fruit tree in which a colony of *Cheiromeles* had sheltered for many years. In due course the tree died and the aborigines (who periodically collected some of these bats for eating by fishing for them with the long extended raphes of rattan palms which have strong recurved thorns), fearing that it might fall in their absence and that they would lose their bats, blocked up the hole during the day and felled the tree. Several hundred bats were caught and eaten, but 19 were delivered to the laboratories of the Colonial Office Research Unit, Kuala Lumpur, and these bore a total of 17 specimens of *A. esau*. Some of these were over 1 inch long and were extremely agile. While a bat was moving about in a cramped wire-mesh rat trap it would repeatedly appear to be pinning an *Arixenia* against the wire but the insect would always sidle quickly out of the way. They were adroit creatures and not easily brushed off: they wandered about mostly on the bodies of the bats, but occasionally on the wings. None were found in the gular pouch.

The total collection of *Arixenia* included nearly 200 *A. esau* and 20 *A. jacobsoni* of instars II to V and adults of both sexes.

It was curious that there were no 1st instar nymphs, since some small bugs (*Loxaspis seminitens* Horvath) were present, suggesting that the collecting had been moderately efficient. It was also surprising that two related species should appear to occupy the same small ecological niche. Possibly *A. esau* lives mostly on the bats while *A. jacobsoni* feeds more on guano. Alternatively the bat "colony" may have been an aggregation of bats from various sources. No other specimens of *Arixenia* have been seen and later the area has become inaccessible on account of terrorist activity.

Mr. W. B. Broughton, on behalf of the Director of the French Ministry of Agriculture's Laboratory of Acoustic Physiology (sponsors of the Symposium), presented the Report of the Symposium on the Acoustics of Orthoptera held in Paris in April 1954, and gave some account of its contents.

Mr. Broughton said that the book is divided into three major sections: definitions and techniques, production of sound (and ultra-sound) and reception of sound (and ultra-sound). Of particular importance in the first section is the attempt to collect an agreed series of definitions for describing the sound complexes produced by insects.

Among the technical papers, those describing the Pimonow spectrometer and the Ionophone thermo-ionic reproducer ("loudspeaker") are of particular interest to workers in insect acoustics; and for lucidity of treatment, F. Pasquinely's expositions of the basic physics are admirable.

In the field of sound production, morphology of stridulatory mechanisms is covered in an encyclopaedic summary by Kevan. Pasquinely and M. C. Busnel usefully survey potential lines of investigation of the physiological mechanisms, P. T. Haskell gives an account of intensity experiments, and D. R. Ragge writes on female stridulation. There are more or less intensive statistical studies of the songs of *Oecanthus pellucens* Scopoli, *Platypleis affinis* Fieber, and *Chorthippus brunneus* Thunberg and its allies.

In the field of reception, the papers of Professors Pumphrey and Jacobs (Munich) apply the concepts of Lorenz, Tinbergen and E. S. Russell to reception

behaviour. Professor Autrum (Wurzburg) gives a comprehensive review of receptor mechanisms. The Busnells (Directors of the sponsoring Laboratory) describe playback experiments on *Oecanthus pellucens*, in which females were observed to move unequivocally towards an ionophone radiating recorded songs of the male.

Perhaps the most fruitful paper in this section is that by Loher and Busnel describing positive responses to artificial signals such as a Galton whistle and human lip-noises.

The Report was then formally handed to the President, who moved an expression of the Society's thanks, which was carried unanimously.

Mr. M. W. R. de Vere Graham read a paper on some features of general interest in Chelonine Braconidae, an abstract of which appeared on pages 11-12. This was followed by a short discussion.

Dr. K. Mellanby gave a paper on Man's sensitivity to Insects, an abstract of which appeared on page 12.

A discussion followed in which the President, Dr. C. B. Williams, Mr. E. F. Riek, Mr. G. A. Brett, Mr. C. N. Hawkins, Mrs. Richardson and Dr. Cloudsley-Thompson took part.

E. B. BRITTON, *Honorary Secretary*.

The next meeting will be held on 6th July at 5.30 p.m.

ADDITIONS TO THE LIBRARY.

Presented

- Busnel, R. G., *editor*. Colloque sur l'acoustique des Orthoptères. Compte rendu des réunions tenues . . . à Jouy-en-Josas, du 5 au 8 avril 1954. *Ann. Epiphyties* (C) tome hors série: 448 pp. [1955]. [Director of the French Ministry of Agriculture Laboratory of Acoustic Physiology.]
- Contributions à l'étude de la faune entomologique du Ruanda-Urundi. (Mission P. Basilewsky 1953). Première partie. *Ann. Mus. Congo belge* (Zool.) 8° 36: 440 pp., 1955. [Musée du Congo Belge, Tervuren.]
- Keys, J. H. *Three entomological diaries*. MSS. [Mr. E. W. Classey.]

Purchased

- Brues, C. T., *and others*. Classification of insects. Keys to the living and extinct families of insects, and to the living families of other terrestrial arthropods. *Bull. Mus. comp. Zool. Harvard*. 108: 917 pp., 1954.
- Stichel, W. *Illustrierte Bestimmungstabellen der Wanzen*. II. *Europa*. 1 Heft. 8vo. Berlin-Hermsdorf. [1955.]

In addition, separates have been presented by New England University College, Armidale, N.S.W.; Miss E. N. Marks; Professor T. W. Kirkpatrick; Professor J. Lane; United States Department of Agriculture; South African Institute for Medical Research; Dr. Max Sellnick; Librarian, Wye College; Mr. P. T. Haskell; Dr. C. H. N. Jackson; Mrs. V. M. Muspratt; Mr. E. B. Britton; Miss A. Løken; Anti-Locust Research Centre; Mr. D. Leatherdale; and Commonwealth Institute of Entomology.